

*CLAIM AMENDMENTS*

Please amend the claims as follows:

1. (Currently Amended) A method of treating ~~the~~ a surface of substrates, ~~characterized in that~~ comprising the steps of contacting the substrate ~~is brought into contact~~ with a solution of a polymer which exhibits UCST properties, and ~~which is caused to be deposited onto the surface of the substrate as a layer by decreasing the temperature of the polymer solution to cause the polymer to be deposited on the surface of the substrate as a layer.~~
2. (Currently Amended) A ~~The~~ method as ~~defined~~ claimed in claim 1, ~~characterized in that~~ further comprising the step of selecting the polymer ~~is selected~~ from the group comprising polystyrenes, polyvinyl alcohols, polyvinyl pyrazoles, polyethylene oxides, polyacrylic acids, and derivatives thereof.
3. (Currently Amended) A ~~The~~ method as ~~defined~~ claimed in claim 1 ~~or claim 2,~~ ~~characterized in that~~ wherein the solution contains an organic solvent.
4. (Currently Amended) A ~~The~~ method as ~~defined~~ claimed in ~~any one of~~ claims 1 to 3, ~~characterized in that~~ wherein the temperature of the solution when contacted with the surface of the substrate is greater than the UCST of the polymer in the solvent, and ~~that~~ the temperature of the solution is then decreased to a value within the UCST range or lower.
5. (Currently Amended) A ~~The~~ method as ~~defined~~ claimed in ~~any one of~~ claims 1 to 3, ~~characterized in that~~ wherein the temperature to which the solution is cooled ranges from *ca*  $T = UCST + 5\text{ }^{\circ}\text{C}$  to  $T = UCST - 30\text{ }^{\circ}\text{C}$ .
6. (Currently Amended) A ~~The~~ method as ~~defined~~ claimed in claim 5, ~~characterized in that~~ wherein said temperature range is from  $T = UCST$  to  $T = UCST - 10\text{ }^{\circ}\text{C}$ .

7. (Currently Amended) A The method as ~~defined~~ claimed in ~~any one of~~ claims 1 to 6, ~~characterized in that~~ wherein the temperature is kept at the low level until substantially complete deposition of the polymer onto the surface of the substrate has been achieved.
8. (Currently Amended) A The method as ~~defined~~ claimed in ~~any one of~~ claims 1 to 7, ~~characterized in that~~ wherein following deposition of the polymer the method further comprising the step of washing, the coated surface of the substrate is washed with a solvent for the polymer at a temperature equal to approximately the UCST of the polymer in the solvent minus 10 °C or lower.
9. (Currently Amended) A The method as ~~defined~~ claimed in ~~any one of~~ claims 1 to 8, ~~characterized in that~~ wherein following deposition of the polymer, the method further comprises the steps of keeping the substrate and the solution ~~are kept~~ at a temperature above the UCST for a short period, and subsequently parting after ~~which~~ the substrate and solution ~~are parted~~ from each other.
10. (Currently Amended) A The method as ~~defined~~ claimed in claim 9, ~~characterized in that~~ wherein the temperature reached ~~when increasing the temperature in the~~ keeping step is not higher than 5 °C above the UCST.
11. (Currently Amended) A The method as ~~defined~~ claimed in ~~any one of~~ claims 1 to 10, ~~characterized in that~~ further comprising the step of, during or following deposition of the polymer onto the surface of the substrate, immobilizing the polymer ~~is immobilized~~ by means of active groups or a chemical reaction.
12. (Currently Amended) A The method as ~~defined~~ claimed in claim 11, ~~characterized in that~~ further comprising the step of washing the surface of the substrate ~~is washed~~ following ~~immobilization of the polymer~~ the immobilizing step.
13. (Currently Amended) A The method as ~~defined~~ claimed in claim 11 ~~or claim 12~~,

~~characterized in that wherein~~ said immobilization is effected by immobilizing step comprises the step of depositing a polymer modified with olefinic groups (double bonds), which is then free-radically immobilized.

14. (Currently Amended) A The method as defined claimed in ~~any one of~~ claims 1 to 13, ~~characterized in that further comprising the step of modifying prior to deposition of the polymer onto the surface of the substrate~~ said polymer is ~~modified~~ to selectively influence the wetting angle of the coated surface of the substrate prior to deposition of the polymer onto the surface of the substrate.
15. (Currently Amended) A The method as defined claimed in claim 14, ~~characterized in that wherein~~ said ~~modification of the polymer~~ modifying step is effected by means of non-polar alkyl groups or with polar groups, ~~particularly hydroxyl or amino groups, or ionic groups, particularly carboxylic acid groups or sulfo groups.~~
16. (Currently Amended) A The method as defined claimed in claim 15, ~~characterized in that further comprising the step of modifying and crosslinking the polymer~~ following deposition of the polymer onto the surface of the substrate, ~~the polymer is modified and crosslinked.~~
17. (Currently Amended) A The method as defined claimed in ~~any one of~~ claims 1 to 16, ~~characterized in that wherein~~ the substrate is a particulate substrate and that the polymer has a molar mass of from 1,000 to 50,000 g/mol.
18. (Currently Amended) A The method as defined claimed in ~~any one of~~ claims 1 to 16, ~~characterized in that wherein~~ the substrate is a flat substrate and that the polymer has a molar mass of from 1,000 to 500,000 g/mol.
19. (Currently Amended) A The method as defined claimed in claim 17, ~~characterized in that wherein~~ the particulate substrate is selected from the group comprising pigments, fillers, fibers, nano particles, and particles of colloidal or

micellar systems.

20. (Currently Amended) A The method as ~~defined~~ claimed in ~~any one of~~ claims 1 to 19, ~~characterized in that~~ further comprising the step of coating the surface of the substrate ~~is coated~~ with a nano layer of a polymer.
21. (Currently Amended) A The method as ~~defined~~ claimed in ~~any one of the~~ preceding claims 1, ~~characterized in that~~ the UCST polymers ~~are~~ is selected such that ~~their~~ its UCST is above the operating temperature of the substrate, ~~preferably at least 10 °C, and more preferably at least 15 °C, above room~~ temperature.
22. (Currently Amended) A substrate having a polymer-coated surface, produced by a the method as ~~defined~~ claimed in ~~any one of~~ claims 1 to 21.
23. (Currently Amended) A The substrate as ~~defined~~ claimed in claim 22, ~~characterized in that~~ wherein the coating is a nano layer.
24. (Currently Amended) A The substrate as ~~defined~~ claimed in claim 22 ~~or claim 23, characterized in that~~ wherein the substrate is a metallic substrate.
25. (Currently Amended) A The substrate as ~~defined~~ claimed in claim 24, ~~characterized in that~~ wherein the substrate is made of steel, galvanized steel, aluminum, or an aluminum alloy.
26. (Currently Amended) A The substrate as ~~defined~~ claimed in ~~any one of~~ claims 22 to 25, ~~characterized in that~~ wherein the substrate is a particulate substrate, selected from the group comprising pigments, fillers, fibers, or lamellar particles, nano particles, and particles of colloidal or micellar systems.